

Attorney Docket No. P63366US1
Application No. 10/779,695

Remarks/Arguments:

Applicants wish to thank the Examiner for marking the instant Office Action to acknowledge, both, the claim to §119 priority and receipt of the certified copy, as requested.

Claims 4 and 6-9, presently amended, are pending.

Claims 1-3 and 5 are canceled, without prejudice or disclaimer.

Claim 9 is rewritten hereby as an independent claim, i.e., by incorporating the rotating cutter head according to claim 3, less the alleged new matter. Claims 4 and 6-8 are amended, hereby, to be dependent on claim 9.

The objection to the specification and the rejection under 35 USC 112, ¶1, are rendered moot by cancelling the alleged new matter, hereby.

Claims 3, 4, and 9 were rejected under 35 USC 102(b) as allegedly anticipated by US5129296 (Wayne). Reconsideration is requested.

The "motor spindle" of rejected, and present, claim 9 is structured to work (cut) an elastomer *in the radial direction*, i.e., the "motor spindle" is limited to (*emphasis added*) "indexable inserts or annular cutting tools provided on said radial periphery and *attacking in the radial direction*." Applicants submit that Wayne fails to disclose a "motor spindle" that is structured (limited) to cut an elastomeric roller "in the radial direction," as recited in rejected, and present, claim 9. A limitation on the rejected (and present) claims being absent from Wayne, anticipation is negated. *Kolster Speedsteel A B v. Crucible Inc.*, 230 USPQ 81 (Fed. Cir. 1986). Withdrawal of the rejection appears to be in order.

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Claims 5-8 were rejected under 35 USC 103(a) based on the combined teachings of Wayne and US5660092 (Scholz). Reconsideration is requested.

As explained above, Wayne fails to disclose a "motor spindle" that is structured (limited) to cut an elastomeric roller "in the radial direction," as presently claimed. Similarly, Applicants submit that Scholz fails to disclose a "motor spindle" that is structured (limited) to cut an elastomeric roller "in the radial direction," as recited in the present claims. Since "the cited references do not support each limitation of [the] claim," the rejection under §103(a), relying on references Wayne and Scholz, "is inadequate." *In re Thrift*, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002). Withdrawal of the rejection appears to be in order.

Claims 3, 4, and 9 were rejected under 35 USC 103(a) based on the combined teachings of US 4,515,055 (Scott) and US 5,647,264 (Proulx). Reconsideration is requested.

Scott does not teach or suggest a true circular, i.e., constant diameter, cutting tool. Scott teaches a saw blade, which does not have a constant diameter; rather, the reference teaches a saw blade shaped to accommodate two, different diameters, e.g., diameters R_1 and R_2 appearing in Scott figures 1 and 2.

The R_2 diameter leads to "guide portion 48 . . . provided to control the depth of cut taken by each tooth" (Scott column 4, lines 23-25). To provide this function the guide portion 48 must be in contact with the object to be cut. Due to a high cutting speed the object to be cut behaves as a solid material. Accordingly, the necessary contact between the guide portion 48 and the object to be cut would lead to backlashes and, so, a very poor, i.e., irregular, cut surface. As a result, a person skilled

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in the art would not have found the saw blade according to Scott useful "for working the surface of an elastomer," as recited in the present claims.

Proulx provides no motivation for modifying the teachings of Scott to effect a cutting tool useful "for working the surface of an elastomer," as recited in the present claims. Since "the cited references do not support each limitation of [the] claim," the rejection under §103(a), relying on references Wayne and Scholz, "is inadequate." *Thrift*, 63 USPQ2d at 2008. Withdrawal of the rejection appears to be in order.

Applicants have considered the allegations set forth in "Response to Arguments" of the instant Office Action (item 9), but find the allegations incorrect. The subject application allegedly contains no evidence to support the "impressive result" set forth at page 7, lines 2-4, of applicants' paper filed August 5, 2005, i.e.,

When the spindle turns clockwise and the rotating cutter head turns counter clockwise, or vice versa, the effective cutting speed at the surface of the elastomer can be increased without increasing the rotation speed or the diameter of the rotating cutter head.

Applicants submit that the allegation fails to recognize that DE 43 05 716 is not only disclosed on page 2 of the subject application, it is also described on page 1, paragraph 2, which reads "all in all, such a machine costs only about one eighth of what a machine according to DE-C-43 05 716 costs." From this sentence it is clear that "such a machine" is the machine disclosed in DE 43 05 716 comprising the aforementioned rotating cutter head. From page 1, paragraph 2, it is clear that this machine is a motor spindle. From the wording "motor spindle" it is clear that the object to be treated by the rotating cutter head, rotates itself; otherwise, the machine would not be a motor spindle but,

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rather, a milling machine. Thus, the subject application supports use of a motor spindle comprising a rotating object as well as a rotating cutter head, which attacks the object to be cut in a radial direction.

In order to reach a high cutting speed, the circumferential speed of the rotating cutter head and the rotating object point in opposite directions. This leads to a cutting speed that is the sum of both the circumferential speed of the rotating cutter head as well as the circumferential speed of the rotating object at the point where the rotating cutter head attacks the object. By means of the rotation of the rotating object (being directionally opposite rotation of the cutting head) the effective speed at which the roller is cut increases, without increasing the rotation speed or the diameter of the (rotating) cutter head.

The person skilled in the art would not have considered it obvious to use a rotating tool in combination with a motor spindle based on using a fixed cutting tool in a motor spindle. In DE 43 05 716 the cutting tool in the motor spindle does not attack the rotating object in a radial direction but, rather, in an orthogonal direction. Accordingly, the reference neither teaches nor suggests providing a motor spindle with a rotating cutter head that attacks a rotating object to be cut in a radial direction at cutting speeds over 10 meters/sec, while rotating up to 3000 rpm, with the disc of the rotating cutting tool having a diameter of 200-800 mm.


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Favorable action is requested.

Respectfully submitted,

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